BACKGROUND

Information on the availability of HIV and AIDS health commodities, recommended prevention and treatment guidelines, and adverse drug reactions is continuously in flux. It is therefore critical that this dynamic base of information be effectively catalogued, monitored, and shared so that policy makers can make the most appropriate policies and decisions on program funding and implementation. For this reason, the Swaziland Ministry of Health (MOH) proposed the development and implementation of the web-based CTS for convenient, efficient tracking and sharing of relevant logistics data in the health sector.

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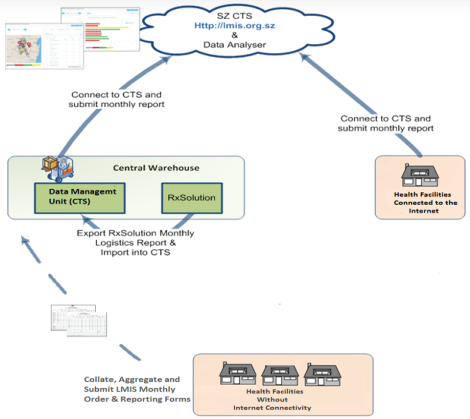
Swaziland CTS



Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program, funded by USAID and implemented by Management Sciences for Health, worked with MOH to design the web-based system which was implemented at the Swaziland Health Laboratory Service (SHLS) in January 2013.

TECHNOLOGY

CTS Platform
Front-end: JavaScript, JQuery, Bootstrap, Highchart, Leaflet
Database: MySQL
CMS: Joomla 3.x
Back-end: PHP
Web server: Apache

Data Analyzer Tool Platform
Front-end: .NET C#
Database: SQLite
Web server: IIS

Swaziland's Innovative Approach to Improving Access to Quality Logistics Data for Decision Making

USAID FROM THE AMERICAN PEOPLE

SIAPS Systems for Improved Access to Pharmaceuticals and Services

WHAT IS CTS?

The Commodity Tracking System (CTS) is a web-based logistic data management system that provides restricted access to information on availability and utilization of health commodities.

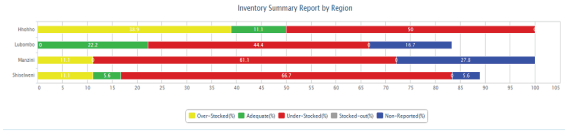
FUNCTIONS

1. Captures, aggregates, analyzes, and communicates data through easy-view dashboards
2. Provides a news feed of important and relevant pharmaceutical and supply management updates
3. Auto calculates, validates, aggregates, and analyzes data
4. Operates with other logistics data management systems, e.g., RxSolution
5. Rapidly generates reports and graphs for decision making

MAIN FEATURES

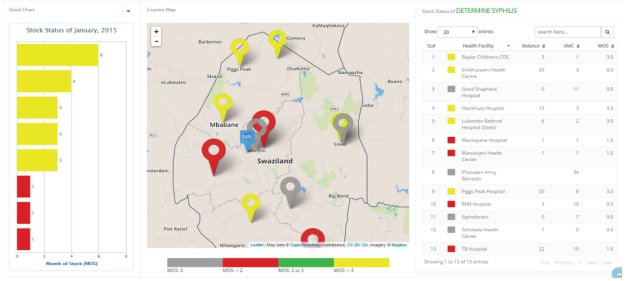
The CTS contains Google maps, tab list of drugs, facilities, programs/departments, and regions; also presents stock status

Reports
Shows national and facility reports on stock status, patient ratios and trends, reporting status, and inventory control



Data Entry Forms
Contains fields to capture information on facilities and commodities – each field contains automated validation controls; where applicable, system is programed to perform auto calculations

Dashboard
Contains flash maps that display geographic location of facilities where commodities are consumed



Access for all authorized users is through www.lmis.org.sz.

MANAGEMENT AND ACCESS TO DATA

Data from implementation sites (facilities or central warehouses) is collected through LMIS forms and captured by the CTS. This data is channeled through the system by users with different levels of permission to capture and access data and reports. For example:

User classification	Access rights
Entry Operator	Enters program data and submits reports
Entry Manager	Enters/updates data and publishes reports
Administrator	Manages users, sets up permissions, and publishes reports
Viewer	Views reports once published

BENEFITS

1. Operational efficiency and customer service enhanced
2. Supply chain more efficient
3. Stock-outs avoided
4. Availability and accessibility of information improved for better and faster decision making
5. Reporting rates from facilities to central level improved
6. Supply chain monitoring improved through real-time information availability
7. Data quality improved through pre-population, auto calculation, and validation
8. Transcription errors reduced, data accuracy improved
9. Overall cost savings
10. Workload at both facilities and central level reduced